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5 plurality of processed partial record information blocks each of which includes a plurality of
information units, each information unit including one or a plurality of reproduction units;
navigation information generating means for generating navigation information including
recording position information indicating recording positions of other reproduction units that
concl. SUB B₁ belong to the same processed partial record information block, corresponding to a predetermined
reproduction time of the partial record information blocks within a predetermined range before
10 and after a respective one of the reproduction units on an axis of reproduction time of each of the
partial record information blocks;
multiplexing means for multiplexing the plurality of processed partial record information
blocks and the navigation information so that each reproduction unit includes the navigation
information, thereby obtaining multiplexed partial record information; and
15 recording means for recording the multiplexed partial record information onto an
information recording medium.

21. The information recording apparatus according to claim 10, wherein:

the record information includes at least video information,

the partial record information blocks are to be reproduced at the same reproduction time
on the axis of reproduction time, and

5 each of the partial record information blocks comprises the video information of the same
object taken from different viewpoints.

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A1 3 ~~12~~ The information recording apparatus according to claim ~~10~~¹, wherein the partial record information blocks are to be reproduced by information reproducing apparatuses having different setting modes.

SUB B2 13. An information recording medium to be reproduced by a reproducing apparatus, the information recording medium comprising:

a plurality of processed partial record information blocks generated by applying a predetermined signal processing to record information including a plurality of partial record information blocks, each processed partial record information block including a plurality of information units;

a plurality of reproduction units, each information unit comprising one or more of the reproduction units; and

10 navigation information included in each of the reproduction units, the navigation information including recording position information indicating recording positions of other reproduction units that belong to the same processed partial record information block, corresponding to a predetermined reproduction time of the partial record information blocks within a predetermined range before and after a respective one of the reproduction units on an axis of reproduction time of each of the partial record information blocks.

5 14. The information recording medium according to claim ~~13~~⁴, wherein:

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the record information includes at least video information,

the partial record information blocks are to be reproduced at the same reproduction time on the axis of reproduction time, and

5 each of the partial record information blocks comprises the video information regarding the same object taken from different viewpoints.

6/15. The information recording medium according to claim 4/3, wherein the partial record information blocks are to be reproduced by information reproducing apparatuses having different setting modes.

16. An information reproducing apparatus for reproducing information recorded on an information recording medium comprising:

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a plurality of processed partial record information blocks generated by applying a predetermined signal processing to record information including a plurality of partial record information blocks, each processed partial record information block including a plurality of information units;

a plurality of reproduction units, each information unit comprising one or more of the reproduction units; and

10 navigation information included in each of the reproduction units, the navigation information including recording position information indicating recording positions of other

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15 reproduction units that belong to the same processed partial record information block,
corresponding to a predetermined reproduction time of the partial record information blocks
within a predetermined range before and after a respective one of the reproduction units on an
axis of reproduction time of each of the partial record information blocks,
the information reproducing apparatus comprising:
detection and demodulation means for detecting and demodulating information recorded
on the recording medium to thereby obtain a demodulation signal;
extracting means for extracting the recording position information out of the demodulation
signal; and
20 control means for controlling reproduction of information on a basis of the extracted
recording position information.

817. The information reproducing apparatus according to claim 16, wherein:
the record information includes at least video information,
the partial record information blocks are to be reproduced at the same reproduction time
on the axis of reproduction time, and
5 each of the partial record information blocks comprises the video information regarding
the same object taken from different viewpoints.

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9¹18. The information reproducing apparatus according to claim ¹16, wherein the partial record information blocks are to be reproduced by information reproducing apparatuses having different setting modes.

10¹19. The information reproducing apparatus according to claim ¹16, further comprising input means for instructing a scan operation at a faster speed than during a normal reproduction, wherein the control means controls the scan operation on the basis of the extracted recording position information.

11¹20. The information reproducing apparatus according to claim ¹16, further comprising input means for instructing a time search operation to perform reproduction at a specific address, wherein the control means controls the time search operation on the basis of the extracted recording position information.

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21. An information recording medium to be reproduced by a reproducing apparatus, comprising:
a plurality of information blocks, each of which includes a plurality of interleaved units;
a plurality of object units, each interleaved unit comprising one or more of the object units;
and

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10 navigation information included in each of the object units and positioned at a forefront of each of the object units, wherein the navigation information includes recording position information indicating recording positions of other object units that belong to the same information block within a predetermined range from an object unit in which the recording position information is included on an axis of reproduction time of an information block to which the object unit belongs.

13 ~~22~~ The information recording medium according to claim ~~21~~¹², wherein:
the record information includes at least video information,
the information blocks are to be reproduced at the same reproduction time on the axis of reproduction time, and
5 each of the information blocks comprises the video information regarding the same object taken from different viewpoints.

14 ~~23~~ The information recording medium according to claim ~~22~~¹², wherein the information blocks are to be reproduced by information reproducing apparatuses having different setting modes.

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24. An information reproducing apparatus for reproducing information recorded on an information recording medium comprising:

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10 a plurality of information blocks, each of which includes a plurality of interleaved units;
a plurality of object units, each interleaved unit comprising one or more of the object units;

15 navigation information included in each of the object units and positioned at a forefront of
each of the object units, the navigation information including recording position information
indicating recording positions of other object units that belong to the same information block
within a predetermined range from an object unit in which the recording position information is
included on an axis of reproduction time of an information block to which the object unit belongs,
the information reproducing apparatus comprising:
detection and demodulation means for detecting and demodulating information recorded on
the recording medium to obtain a demodulation signal;
extracting means for extracting the recording position information out of the demodulation
signal; and
control means for controlling reproduction of information on the basis of the extracted
recording position information.

16 25. The information reproducing apparatus according to claim ¹⁵24, wherein:

the record information includes at least video information,

the information blocks are to be reproduced at the same reproduction time on the axis of
reproduction time, and

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5 each of the information blocks comprises the video information regarding the same object taken from different viewpoints.

~~17~~¹⁵26. The information reproducing apparatus according to claim ~~24~~¹⁵, wherein the information blocks are to be reproduced by information reproducing apparatuses having different setting modes.

~~18~~¹⁵27. The information reproducing apparatus according to claim ~~24~~¹⁵, further comprising input means for instructing scan operation at a faster speed than during a normal reproduction, wherein the control means controls the scan operation on the basis of the extracted recording position information.

~~19~~¹⁵28. The information reproducing apparatus according to claim ~~24~~¹⁵, further comprising input means for instructing time search operation to perform reproduction at a specific address, wherein the control means controls the time search operation on the basis of the extracted recording position information.--

REMARKS

Summary of the Office Action

In the Office Action dated May 21, 1999, claims 1-9 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Cookson et al.*, U.S. Patent No. 5,574,567.

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